3: Rasmussen--10-11 (c. 1923) 1932 Copper Eskimo-1-2
116, 126

"On the afternoon of the fourteenth of November -- a fine day right up to the moment when the [11] cold autumn sun glided down below the horizon -- I drew up before the little trading post, which was built in a sheltered cove almost at the mouth of the great fjord Ilu. I was given a most cordial welcome. The post is managed by Mr. H. Clarke, an intelligent and likeable young man, who had been sent by the H.B.C. up into these remote regions to organize all the new posts that had been established east of Baillie Island. Mr. Clark's [sic] assistant was a Danish marine engineer, Rudolf Jensen, who for about twenty years had lived up round the delta of the Mackenzie as an independent trapper and was now in the Company's service. I was most of all pleased to find there my expedition's film operator Leo Hansen, who had travelled up to meet me. By the winter mail from Repulse Bay in January 1923 I had written home to my Committee and asked to have a film-photographer sent out, as I was certain that a professional photographer, by taking living pictures, would be able to make an unusual supplement to the material which it was our object to collect. Mr. M.I. Nyeboe, the chairman of the Committee, had granted my wish, and now here was Leo Hansen at the trading post at Kent, the very place I had suggested as a meeting place in my letter to the Committee. With his photographic equipment and without the slightest untoward event he had traversed the enormous distance, first from Copenhagen to New York, then from there through Canada to Vancouver, where he boarded the Hudson Bay Company's big steamer 'Lady Kindersley'; sailing on its annual trading voyage this vessel had taken him north about America via

Point Barrow and Herschel Island eastwards to the little post of Tree River in Coronation Gulf; in September he had left there for Kent on the little schooner that takes supplies in summer to the posts at Kent and Cambridge Bay on Victoria Land. We had never met before, and now greeted each other with the cordiality that one involuntarily displays towards those who are to help to complete an important task.

Before we could commence our collaboration, however, the dogs had to have a rest, and I myself wanted a few days quietude in which to read the big mail I had just received. Mr. Clark was kind enough to place at our disposal a house that was unoccupied at the time, and it was with genuine pleasure at the unusual comfort now offered us that we took the little wooden shed in possession.

Still, we could make no long stay; the dark season was at hand, and we had to take into consideration that there would not be light enough for film photography in December. When the light returned some time in March we should be right out of the North-West Passage region, among the half civilized Eskimos in the Mackenzie Delta, and particularly on this account the days to come had to be utilized."

"We spent a whole day familiarizing our new friends [MPK: the Umingmaktôrmiut] with the objects we were pursuing, and, though they certainly were not everyday objects, we found no difficulty in making the people [14] understand the situation. At first there was some argument about the living pictures. They were unable to understand how they would have life in them unless we robbed people of their souls. However, we got over that difficulty by showing them some pieces of developed film, demonstrating how every movement was reproduced. Then when it was explained that all these pictures, enormously enlarged, were quickly passed over a white screen, they soon realized the idea; and when I promised into the bargain that Leo Hansen could begin by 'taking my soul', all scruples gradually faded away.

The sun was now so low in the sky that it just showed itself over the horizon at noon. Unfortunately, it became very cold just in these days and, accompanied by a strong breeze, remained between 40 and 50 degrees below zero, the lowest temperature I have ever experienced in November. Every time the camera was brought out and had worked a few minutes, the mechanism froze and we had to take it into the hut to thaw it out before we could continue our photography. In vain we tried building a small snow hut round the apparatus so that we could keep a primus stove burning under it; we could rarely keep the film moving longer than five or six minutes, after which the mechanism became so stiff that the handle could not be turned. Leo Hansen tried several experiments and time after time got his fingers frozen on the ice-cold camera, whose fine

screws could only be adjusted with the bare hand -- all to no purpose. Regularly every fifth minute operations had to be discontinued and the apparatus thawed. Daylight lasting only one hour and a half, these interruptions were doubly annoying. It is therefore so much more to the credit of Leo Hansen that, despite the enormous difficulties he had to contend with, he succeeded in taking a series of types and short scenes of daily life among these Eskimos where living pictures had never before been taken."

4: Jenness--9B-12B (1913-16) 1924 Copper Eskimo
116, 524, 126

"The collections of string figures described in the following memoir were obtained at different times and in different places during the years 1913-1916. Those from Alaska were gathered in the winter of 1913-14 from various natives between Barrow and the international boundary, five hundred miles to the eastward. A few Siberian figures were secured in the spring of 1914 from some Indian point Eskimos belonging to the steam whaler Belvedere, caught in the ice off this coast. During the same spring I met some Mackenzie delta Eskimos at Icy reef, close to the boundary, and obtained some notes on the game in their region; further information was obtained at Herschel island during the summer, and from some Mackenzie delta natives in the service of the expedition. The figures from the Copper Eskimos were obtained during the years 1914-1916, when the southern party of the Canadian Arctic Expedition had its headquarters at Bernard harbour.

The arrangement of the figures is based upon their opening movements. A secondary arrangement follows the order of their distribution, those which are most widely spread being placed first, then those which are more local. In the case of the local figures, those from Alaska precede those from the Mackenzie delta, and the latter precede those from Coronation gulf. Occasionally a figure which was found in one place only has been placed in another setting when it was obviously derived from or connected with a figure from a different locality.

After the figures had been arranged in this way and the MS. virtually completed two other collections of string figures, mounted on sheets of paper and cardboard, were submitted to me for examination. The first collection, submitted by Dr. F. Boas, was secured many years ago by Captains Comer and Mutch from the Eskimos of Cumberland sound and the west coast of Hudson bay. The other collection, submitted by Captain Joseph F. Bernard, was obtained by him in 1922 from the Maritime Chukchee on the Siberian coast between Capes Nuniamo and Unikin. No information was obtained as to how these figures were constructed, but about 60 per cent of them could be identified with figures in my own collection. The remainder I have disregarded altogether, partly because of the lack of information as to how they were made, and partly because in many cases the string had been distorted out of all semblance to its original shape. In the Appendix, however, I have given a list of the unidentified figures from Cumberland sound and Hudson bay.

As far as the literature is concerned, very little has been published concerning Eskimo string figures. The largest collection hitherto made is that of Dr. G. B. Gordon, obtained on the west coast of Alaska in 1905; (1) Mrs. Jaynes has republished

"1. Gordon, G. B. Notes on the Western Eskimo, Transaction of the Department of Archaeology, Free Museum of Science and Art, University of Pennsylvania, Vol. II, part I, 1906."

these figures together with two or three new ones which she obtained from an Eskimo of the same region. (2) Klutschak illustrates three figures from the Eskimos of King William island, (3) and Dr. Boas has published five from Cumberland sound. (4) From Labrador and Greenland the only figures recorded, to my knowledge, are six that were obtained by Dr. A.L. Kroeber from some Eskimos of Smith sound. (5) [10B]

In describing the different figures I have used the technical terms devised by Drs. Haddon and Rivers. (1)

'Terminology. -- A string passed over a digit is termed a loop. A loop consists of two strings. Anatomically, anything on the thumb aspect of the hand is termed 'radial,' and anything on the little finger side is called 'ulnar,' thus every loop is

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"2. Jaynes, Mrs. C.F. String Figures. New York, 1906.

3. Klutschak, H.W. Als Eskimo unter den Eskimo. Leipzig, 188I, p. 139.

4. Boas, F. Internationales Archiv für Ethnographie, I, 1888, p. 229; cf. the same author, The Central Eskimo, Sixth Annual Report, Bureau of American Ethnology, Washington, 1888, p. 569.

5. Kroeber, A.L. The Eskimo of Smith Sound. Bulletin of the American Museum of Natural History, Vol. XII, -899, p. 298.

1. Rivers, W.H.R., and Haddon, A.C. A Method of Recording String Figures and Tricks. Man, II, 1902, p. 147."

distal or proximal side of other loops. We use these expressions as a general rule instead of 'over and under,' 'above and below,' because the applicability of the latter terms depends on the way in which the figures are held. If the figures are held horizontally, 'over and above' will correspond as a general rule to the distal side, while 'under and below' will correspond to the proximal side. In some cases when there is no possibility of confusion, we have used the shorter terminology.

A given string may be taken up by a digit so that it lies on the front or palmar aspect of the finger, or so that it lies on the back or dorsal aspect. In nearly all cases it will be found that when a string is taken up by inserting the digit into the distal side of the loop, the string will have been taken up by the palmar aspect, and that the insertion into the proximal side of the loop involves taking up the string by the dorsal aspect of the digit.

Other operations involved are those of transferring strings from one digit to another and dropping the strings from a given digit or digits.

The manipulation consists of a series of movements, after each of which the figure should be extended by drawing the hands apart and separating the digits. In some cases in which this would interfere with the formation of the figure, a special instruction will be given that the figure is not to be extended. Usually it is advisable to keep the loops as near the tips of the digits as possible.

There are certain opening positions and movements which are common to many figures. To save trouble these may receive conventional names; the use of these will soon be apparent, but it is better to repeat descriptions than to run any risk of obscurity. [11B]

Position I. -- This name may be applied to the position in which the string is placed on the hands when beginning the great majority of the figures.

Place the string over the thumbs and little fingers of both hands so that on each hand the string passes from the ulnar side of the hand round the back of the little finger, then between the little and ring fingers and across the palm; then between the index and thumb and round the back of the thumb to the radial side of the hand. When the hands are drawn apart the result is a single radial thumb string and a single ulnar little finger string on each hand with a string lying across the palm.

This position differs from the opening position of the English cat's cradle in which the string is wound round the hand so that one string lies across the palm and two across the back of the hand with a single radial index string and a single ulnar little finger string.

Opening A. -- This name may be applied to the manipulation which forms the most frequent starting point of the various figures. Place string on hands in

Position I. With the back of the index of the right hand take up from proximal side (or from below) the left palmar string and return. There will now be a loop on the right index, formed by strings passing from the radial side of the little finger and the ulnar side of the thumb of the left hand, i.e., the radial little finger strings and the ulnar thumb strings respectively.

With the back of the index of left hand take up from proximal side (or from below) the rigth palmar string and return, keeping the index with the right index loop all the time so that the strings now joining the loop on the left index lie within the right index loop.

The figures now consists [sic] of six loops on the thumb, index, and little finger of the two hands. The radial little finger string of each hand crosses in the centre of the figure to form the ulnar index strings of the other hand, and similarly the ulnar thumb string of one hand crosses and becomes the radial index string of the other hand.

The places where the strings cross in the centre of the figure may be termed the crosses of Opening A. '

The term 'navaho' is derived from Miss Haddon, who defines it thus. (1) 'When there are two loops on a digit, a distal one and a proximal one, you are often

required to lift the proximal loop over the distal one, and over the tip of the digit on to its palmar aspect. This movement I refer to as 'Navahoing' on account of its frequent occurrence among the string figures of the Navaho Indians of New Mexico, U.S.A.'

For the purpose of this monograph I have ventured to add three new terms, two of which indicate opening movements from which many figures are derived, while the third denotes a movement which recurs so constantly that the Eskimos themselves have given a special name to part of it. These new terms are:--

Opening B--

Make Position I. Bring the right hand across and with the palm of the right index (i. e. from the distal side) take up the left palmar string and return, half-circling the index counter-clockwise. With the back of the left index from the proximal side take up the radial left little finger string. Drop both little finger loops. (See fig. 1.) [12B]

Opening C

Loop over the thumb and index of each hand. With the backs of the little fingers from below push back the radial thumb strings, then hook their palms down over the ulnar

"1. Haddon, Kathleen. Cat's Cradle from Many Lands, London, 1912, p. 5."

index strings. (See fig. 2.)

Katilluik--

Kaṭilluik (Barrow kätiλ·uik or katiλ·uγik, 'put two things together') is a movement which can take place only at a later stage in the evolution of a figure. It necessitates separate loops on each thumb and index, and describes the transferring of the left thumb loop from the proximal side to the right thumb (or vice-versa, according to which loop lies outside the other). The left thumb is then inserted, also from the proximal side, into both the right thumb loops. Draw the thumbs apart, then with each thumb from the proximal side take up the radial index string of its hand, navaho the thumbs and drop the index loops.

The Mackenzie delta term for this movement is neovektiλ·uγik which has the same meaning. Strictly speaking, both terms refer to the first stage of the movement only, the combining of the loops on the thumbs. For an example of the complete movement see No. I, 'the two brown bears.'

For the drawings of all the figures in this paper I am indebted to Mr. O. E. Prud'homme, artist of the Victoria Memorial Museum, Ottawa."

5: Jenness--1 (1913-16) 1924 Copper Eskimo
116, 126

"The myths and traditions that are contained in the present volume were collected along the Arctic coast between December, 1913, and June, 1916. They are divided into two parts; the first comprises the Alaskan stories, with which are included one story from the Siberian coast and four others from the Mackenzie river delta; the second comprises the tales collected among the Copper Eskimos, from the regions of Dolphin and Union strait and Coronation gulf."

6: Roberts and Jenness--7-8 (1914-1916) 1925 Copper Eskimo
116, 126, 533

"All the Eskimo songs discussed in the present work were recorded on a phonograph between the years 1914 and 1916, either at Bernard harbour, in Dolphin and Union strait, or at Eskimo settlements in the immediate vicinity. Bernard harbour during that period was the headquarters of the southern party of the Canadian Arctic Expedition, and the great majority of the records were made within the station house, since the low temperature of the Eskimo snow huts hardened the wax and marred the impression of the needle. Dolphin and Union strait lies within the territory of the Copper Eskimos, but a few songs of the more western Eskimos were obtained from some natives in the employ of the expedition, and half a dozen eastern songs from two Hudson bay men who visited our station, and from a Copper Eskimo woman who accompanied them.

The Copper Eskimos were not acquainted with a phonograph prior to this time; there were still a few natives, in fact, who had never seen a white man. They thought a spirit was reproducing their words, and were quite nervous at first about singing into the machine; later, when more familiar with it, one or two of them were inclined to play pranks, ejaculating, laughing or talking in the middle of a song to create more amusement when the record was played over. The texts of the songs are full of this extraneous matter. By far the larger portion of it, however, is the natural expression of the singers' emotions, voiced in exactly the same manner as in their own dance-houses, where the songs are constantly interspersed with cries and laughter.

6: Roberts and Jenness--7-8 (1914-1916) 1925 Copper Eskimo-2
116, 126, 533

Natives from nearly every part of the Copper Eskimo area flocked to Dolphin and Union strait to trade with the Expedition, and songs were recorded from individuals of every age and sex, from little children to old men and women. Hence the collection from this area illustrates fairly adequately the characteristic features of the music and of the versification. The handful of songs from other regions are less representative and, while valuable for comparative purposes, reveal but little of the real wealth of song in those areas.

It was seldom possible to transcribe and translate the texts of the songs with the help of the actual singers. The work was long and tedious, and very few of the natives showed the necessary aptitude and patience. So the records were played in sections to one, or more usually two, Eskimos and translated into English through an interpreter. For about a third of the songs my interpreter was a Mackenzie river Eskimo whose knowledge of English was limited to what he had picked up around the police post at Herschel island; for the remainder I used and Alaskan half-breed who spoke English a little more fluently and was more intelligent, although he could neither read nor write. Eskimo songs, as a rule, are comprehensible to their composers only; their obscurity, and the limited knowledge of myself and of my interpreters, will explain the imperfections, and I fear sometimes the errors, of the translations. The divi-[8] sions of the songs into verses and refrains were made by myself from the records, or in a few instances by

Miss Roberts; on this subject I failed to obtain any information from the Eskimos themselves.

The Department was exceedingly fortunate in being able to secure the services of Miss Helen H. Roberts, formerly of Columbia University, for the musical transcription and analyses of the phonograph records. All the first part of this paper, which deals with the music of the songs, is by Miss Roberts; I have simply checked over the texts underneath the music. In a few cases the text submitted to her was defective; it has been corrected wherever possible, but omissions have generally been allowed to stand lest the syllables should be attached to the wrong notes. The second part of the paper, which gives the texts and translations of the songs, has been arranged to correspond in form with the first.

I very much regret that Thalbitzer's and Thuren's elaborate study of the music and songs in Greenland (Meddelelser om Grønland, Vol. XL, Copenhagen, 1923) did not appear before the MS: of this paper was submitted to the printers.

The sketch map at the end of this volume shows the different regions from which the Copper Eskimo songs were derived.

D. JENNESS."

27:Chown & Lewis 3-5 (1958)1959
ND8 Copper Eskimo ND8

[P 13, B]

The Blood Group Genes of the Copper Eskimo[1]

BRUCE CHOWN AND MARION LEWIS
Rh Laboratory[2] and Department of Paediatrics, University of Manitoba, Winnipeg, Canada

175
648

[563]

124
582

124
126
143

[165]

[122]

or child may have been spared and incorporated into the population.

As to the other admixtures there was only a rare contact between Eskimo and people other than Indian from 1771 until about 40 years ago. These were not whaling waters. A few explorers and trades entered the area, some of whom married Eskimo women. These events are so recent that children of these marriages are still living, a number of whom we tested. Today there are two small white settlements, that at Cambridge Bay and that at Coppermine, and several still smaller implants.

In the present study 330 out of the total of approximately 1000 were tested. With the help of Corporal and Mrs. D. McDougal of the R.C.M.P., Father LaPointe, O. M. and the Reverend Canon Sperry a detailed genealogy was drawn up. There were no first-cousin marriages.[3] The genealogy could not be carried far enough back to prove or disprove second-cousin marriages. Of the 330, only 10 could be proved to have white ancestors; these 10 were eliminated in gene frequency analysis. Such analysis was carried out for the remaining total 320 and for 46 among them who were apparently unrelated. While there is no significant difference between the two estimates, we think analysis based on the 320 is probably more accurate since phenotypes of low frequency were then represented. The estimates in the tables are so based. There is a high death rate in young adults, so it was unusual to obtain blood from children and both parents. Few genotypes could therefore be defined but in what family data we did obtain, there was no disagreement between expected phenotypes and those found.

[1] Assisted by a grant from the National Museum of Canada. Dr. Jacques Rousseau, Director.
[2] Postal address, 735 Notre Dame Ave., Winnipeg 3, Man., Canada.
[3] See addendum.

[P.14,A]

SAMPLES, SERA AND METHODS

126 143 Samples were collected at Cambridge Bay, Holman Island, Reid Island and Coppermine in April, 1958 and the tests carried out at the Hudson's Bay Company post at Coppermine. With the exception of the specimens from Cambridge Bay (which were venous samples obtained for us by Dr. Gillison of the Department of National Health, sent by air to Coppermine and tested on the third day) all samples were of capillary blood taken into saline and tested on the day of collection.

121 128 143 The test sera had all been in use in our laboratory for some time so that their specificity and mode of action were well known. We had taken test cells of various known antigen constitution with us; these were used daily to control the results. Five methods were used according to the mode of action of the various sera; agglutination in a capillary tube by untreated serum (Chown and Lewis, '51) indicated below by "capillary;" agglutination in a capillary tube by serum mixed with activated papain (Lewis et al., '58) indicated below by "capillary papain;" the indirect Coombs technique of Race and Sanger ('58) modified to the extent that the final agglutination with anti-human-globulin rabbit serum (Coombs' reagent) was carried out in a capillary tube, indicated by "indirect Coombs;" agglutination in bovine albumin (Lewis and Chown, '57), indicated below by "short albumin;" open well slide, so stated below. In the following the serum is described first; the method is given after the semicolon. The letters in brackets are our code names for the particular serum used. Unless otherwise indicated tests were made at room temperature which varied from 18° to 22°C.

The ABO system. One each, high titre, avid anti-A and anti-B and one anti-A + B from O donor; capillary. One commercial anti-A_1 (absorbed B); open well slide.

The MNSs system. One commercial anti-M; capillary. One commercial anti-N; open well slide. One anti-S (Dev), one anti-s (Chei); capillary. One anti-Mi^a (UB no. 4), one anti-M^a (HA1); capillary. One anti-Vw(Gill); short albumin. One anti-He (Sha); open well slide.

[P. 1]

MATERIAL CULTURE OF THE COPPER ESKIMO

INTRODUCTION

In 1914, when the Canadian Arctic Expedition established its headquarters at Bernard Harbour in Dolphin and Union Strait, on the western fringe of Copper Eskimo territory, the natives preserved their old culture, virtually unimpaired, despite contact with several explorers in the middle of the nineteenth century, and with others during the early years of the twentieth. The only visible change caused by these contacts was the introduction of a considerable quantity of iron, which the Eskimo hammered cold, as they hammered their native copper, and had already substituted for copper in knives, adzes, harpoon-heads, and needles. From lack of ammunition the only men who possessed rifles, five in number, had fallen back on the bow and arrow, which was still the universal weapon of the chase. Of the arrows not tipped with bone about two-thirds bore tips of hammered copper and only one-third tips of iron; the ice chisel and other tools retained their copper blades and points; and the soapstone pot for cooking meat held undisputed sway in every household. All clothing was of skin or fur, mainly from the caribou and the seal; and in cut and adornment it followed without change the styles set by earlier generations. The blubber of the seal, burned in a soapstone lamp, provided the only artificial light, and throughout the winter months all the energies of the Eskimo were concentrated on the pursuit of seals at their breathing holes in the sea ice.

Ten years later the situation had undergone a profound change. Native copper had become practically valueless and served for rivets only. Bows and arrows had disappeared, because every native was now armed with a high-powered rifle. Other weapons and tools had steel or iron blades, metal cooking pots had ousted the soapstone vessels, and primus lamps and kerosene lanterns were spreading from home to home. Fur clothing was tending to follow western Eskimo patterns, and to be overlaid with bead-work, or with imported garments of cotton or wool. Dissatisfied with the old-fashioned snow-hut and skin-covered kayak, one native had even erected a plank cabin heated by an iron stove, and purchased a motor-boat to transport his household goods along the coast during the brief summer months. The tentacles of the fur trade had firmly gripped the region, and the trapping of foxes, animals of no economic importance in earlier times, now rivalled in importance the hunting of seals and caribou.

Fortunately, before this revolution occurred, the Canadian Arctic Expedition had brought out a large collection of Copper Eskimo specimens, nearly all of which are now stored in the National Museum at Ottawa. These specimens, and

These specimens, and random field-notes made during the course of the expedition, provide the foundation for the following report. It has been written at odd times during the last 25 years, but was so nearly complete by 1932, when the late Knud Rasmussen published his splendid "Intellectual Culture of the Copper Eskimos" (Reports of the Fifth Thule Expedition, 1921-1924, vol. IX, Copenhagen, 1932), that it seemed advisable to let it stand without any change or revision; consequently, the reader will find no references to Rasmussen's work.

In this volume the series of "Reports of the Canadian Arctic Expedition, 1913-18", reaches its conclusion. There will be no archaeological paper, as originally planned, describing the Eskimo ruins on Barter Island.

I am indebted to Miss W. K. Bentley and Mr. O. E. Prudhomme for all the drawings in this volume except those in colour, which were made in the field during the winter of 1915-16 by the late Rev. H. Girling, the first Anglican missionary to visit the Copper Eskimo.

Trousers. Women, like men, wore two pairs of trousers (*nalikkak*) in winter, and only the inner pair in summer; but as their stocking covered more of the leg than the men's, their trousers were shorter and did not reach the knees. 291 192

The inner pair was rarely if ever decorated. The outer often had coloured stripes down the outside of each leg, and, in the middle of the front, a triangular gusset of white fur, with its two sides parallel to the white or coloured edges of the stockings. To enhance the symmetry of the arrangement these two sides also carried at times an edging of coloured bands (Figure 29). 291 531

So far as I know, women never used drawstrings on their trousers, but secured them with a sealskin thong fitted with loop and toggle. 291

Shoes, Socks, and Mittens. These were in no way different from those worn by men. Women, of course, did not possess the long working mittens that reached half-way up the forearm.

Waterboots. The woman's waterboot (Figure 30) had the shape of the stocking beneath it, which above the foot differed entirely from a man's boot or stocking. After fitting tightly around the ankle it expanded rapidly upward, attaining just above the knee a diameter of from 10 inches to over a foot. The outer side of the boot (or stocking) then tapered to form a wide strap that tucked over the belt holding up the trousers.

In the foot it did not differ from a man's boot. Like a man's, too, the leg had only one seam, straight up the middle; but in so large an expanse of skin there were generally two or three holes, from wounds and other causes, that required covering with round patches.

Outer Stockings. The waterboot replaced in summer the outer stocking (*ipiqa.k*) of caribou fur, which bore the same peculiar shape as the boot, but was frequently decorated after the manner of the man's outer stocking. Commonly all the upper edge, from the inside of the knee to the top of the strap that tucked into the belt, was bordered with several parallel rows in red, white, and black (either the black or the red, but more commonly the red, might be omitted). From the strap to the foot, down the front of the leg, ran another broad band, similarly coloured, and a third, or else two or three rather narrow bands inserted an inch or two apart, extended half-way around the ankle or completely encircled it (*See* Figure 31). There were numerous modifications of this pattern, however, as in the patterns on men's stockings. For example, the coloured stripes varied greatly in number; they were often replaced by broad or narrow bands of white caribou fur; and the decoration down the front of the leg was frequently omitted (*See* Figure 32). 292 531 [192]

The feet of both outer and inner stockings were made preferably from caribou leg skins, but not infrequently from marmot fur. In spring some women replaced them with feet of haired sealskin. The rest of the garment was derived from the body fur of the caribou. 291 292 237

Inner Stockings. These corresponded in shape with the outer, and bore the same name, *ipiqa.k*, but were almost invariably plain. In fact, I have seen only one decorated pair, a specimen that came from Prince Albert Sound. It bore the usual red, white, and black stripes, but they were inserted on the hairless, unattractive side, as the stocking was worn with the fur side in. Around the ankle was an additional design, the YII pattern that women tattooed on their arms and etched on their needle-cases, here produced by running stitches of very narrow sealskin (Figure 33). This design was very rare on garments, but occurred also on a woman's coat and on a pair of women's outer stockings that we bought in Coronation Gulf. 291 531 [192] [304] [294] [126]

I know of only one source for this material that is used at the present time by the Copper Eskimo, Port Epworth at the mouth of Tree River in Coronation Gulf where the talc chlorite schist occurs as an inclusion in the granite. It is very coarse in texture, and of a pale grey colour, as can be seen in unused specimens or by fracturing an old one.

Nevertheless, there seem once to have been other sources. An old woman who lived at the east end of Coronation Gulf told me that long ago her people used to make lamps and pots from stone obtained in a quarry on Rae River. An early explorer, John Rae, did find soapstone at the fall 10 miles from the mouth of this river,[1] but only in thin beds, which might explain why the Eskimo ceased to use this source. Then again, I purchased from a Coronation Gulf native a little toy lamp of typical Copper Eskimo shape (Figure 50), which was certainly not made from the Port Epworth soapstone, for it is much finer in texture and of a pale green colour. In the same region I obtained also an unfinished implement, resembling an imitation lance-head, which was made from a very similar soapstone, but is yellowish green. Finally, from the west coast of Hudson Bay, probably from Chesterfield Inlet, the museum has a toy lamp (IV.C.165) that resembles in colour, texture, and graining the green toy lamp bought in Coronation Gulf; in shape and dimensions the two are practically identical except that the Hudson Bay specimen has no shelf. Morley E. Wilson, of the Geological Survey, Canada, expressed the opinion that these lamps almost certainly came from the same quarry, because this type of soapstone is exceedingly rare in Canada, and that the implement like a lance-head was also derived from the same locality. It is worth noting that there are deposits of soapstone near the mouth of Back River.

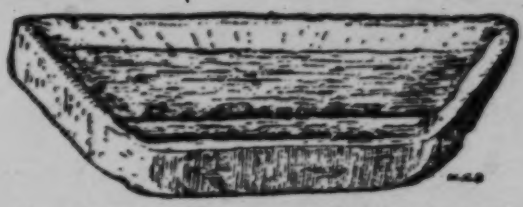


Figure 50. Toy lamp, of pale green soapstone. IV.D.613. 1/1.

Up to a few years ago natives from Dolphin and Union Strait in the west to Amundsen Gulf in the east often migrated to the Port Epworth quarry in the spring of the year in order to manufacture their own lamps and pots. Each family usually made more vessels than it required for its own use in order to have some for barter when it returned home the following autumn or winter.

Women and children often fashioned the smaller lamps and pots. The larger ones were the work of the men, although once they were finished and handed over to the housewife they became her exclusive property. No special skill was required; children 10 years of age could make small lamps just as good as those made by their elders. A little more care was necessary in working at a pot, because the rock, though soft, was somewhat brittle, and the walls and bottom had to be comparatively thin; but even this was not beyond the ability of a child, as it required patience rather than technical skill. With his crude copper tools a native could quarry out his block and make the largest lamp that was ever used in about 3 days, and the largest pot in no more than a day longer; iron tools, of course, appreciably lessened the time. First, he chiselled

[1] Richardson, Sir John: Journal of a Boat Voyage through Rupert's Land, vol. I, p. 312. London, 1851

412 177 178 [439] By 1914 hardly a single copper-bladed knife remained in the country, except specimens that had been manufactured for sale to the first traders, like those shown in Figure 109. All the Copper Eskimo were using iron knives of various sizes and shapes, some with small blades and long handles, others with long blades and short handles, some single-edged and some two-edged (Figure 110). Specialization in types was beginning. For cutting snow, knives with long handles and long blades were accounted the most useful; for skinning caribou and seals, knives with shorter handles and blades of medium length. Some natives still preferred two-edged knives for skinning, others liked a sharp point, curved back, and a blunt back edge, as in the European hunting knife. Many men made still smaller knives for miscellaneous uses around the camp. A [439] certain number of small knives with copper blades may have been used even in the earliest days,[1] but all such specimens that I have seen, whether of iron or copper, date from the twentieth century, and the copper ones were made to sell to Europeans. Certainly the commonest type of knife in pre-European days, perhaps the only type outside the whittling knife, was the large lanceolate form commonly called the snow knife.

412 172

412 325 [129]

[321]

[412] [439]

Figure 109. Copper-bladed knives made for sale. *a*, IV.D.1581, 1/2; *b*, IV.D.345, approx. 1/2.

The older Thule inhabitants of the region, like those to the west and east, used a large, curved snow knife, nearly always made from whalebone. Figure 112 (IV.D.1660), however, shows a specimen obtained by Capt. J. Bernard in Coronation Gulf that is made from musk-ox horn. The local Eskimo knew its purpose, but had no recollection of ever using such a tool themselves.

Whittling Knives. Typical whittling knives (*haviro.n*) with iron blades are shown in Figure 113. Copper was used for the blade in early times, but I was able to obtain only two examples, one of which is shown in Figure 114. Here, as often with the iron-bladed whittling knives, the handle is perforated half-way along its length for the attachment of the sharpener, which was usually of steel, but in this case a small copper pencil mounted in an antler handle.

Figure 113*a* shows a fairly old specimen with a tiny blade of what seems to be hoop iron; the handle, as usual, is of antler, and the rivet in this case of copper. In the specimen represented in Figure 113*b* the handle has been extended by splicing a short additional piece of antler. The same thing has occurred in the specimen shown in Figure 113*d*, but such extensions were less usual among the Copper Eskimo than among the Eskimo to the west.

[172]

[1] In 1929 Mr. Lincoln Washburn obtained a handleless copper knife blade (Figure 111) that had been picked up on Victoria Island. One surface only was covered with a green patina; the other was still coppery, though dulled. Probably the specimen is not of great age.

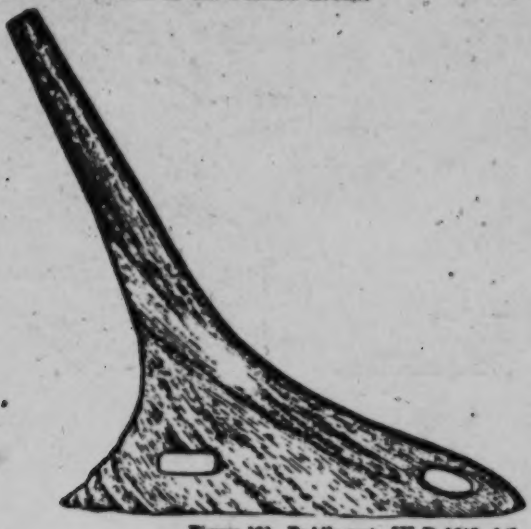
501 in most districts he used it so seldom that he either disposed of it after a year
[422] or two, or else broke up its frame and employed its wood and skin for other purposes. At the time of our visit not one man in ten owned a kayak, or even the frame of one. Around Dolphin and Union Strait I saw only two kayaks, one of them owned by a Victoria Island native, but they became progressively more numerous as one travelled east to Bathurst Inlet. They kept the same shape everywhere, although they differed in length; and the frame was invariably
501 of spruce wood, the covering of sealskin. Generally they were longer, and, in
171 proportion to their length, narrower than kayaks to the westward. They lacked, also, attachments for a sealing harpoon or bird spear, and their bows and sterns had neither eyelets nor projecting horns to facilitate their transport on sleds. In Mackenzie Delta nearly every kayak bore an upstanding horn at each end, and along the Arctic coast of Alaska as far as Barrow, if not beyond, it was usual to have an eyelet in the bow and a horizontally projecting horn in the stern. Below are the measurements of five kayaks, two from Arctic Alaska, two from Mackenzie Delta, and one from Victoria Island within the territory of the Copper Eskimo.

—	Arctic Alaska		Mackenzie Delta		Victoria Island
	Ft. In.	Ft. In.	Ft. In.	Ft. In.	Ft. In.
Total length	15	13 3	15 8	15 10	21 7
Greatest breadth	1 6	1 6	1 7½	1 6	1 3½
Distance of opening from stern	6 5	5 8	7	7	8 6
Depth of opening in front	1	1	11	1 2	1 2½
Depth of opening behind	9½	9	6½	8	7
Diameter of opening	1 4 by 1 6½	1 11 by 1 3½	1 4½ by 1 6	1 6 by 1 6	1 6

501 In Copper Eskimo kayaks, bows and sterns were practically straight and the deck level, except just forward of the opening for the paddler, where the front of the gunwale, as usual, was raised by an angular arch. This gunwale was formed by two circular hoops of wood that bound the skin covering between them and were tightly lashed together with sealskin thongs through holes near their rims. Lashed to the deck a few inches in front of the hole was the paddle
[321] rest (Figure 181), an L-shaped piece of bone with the upstanding "horn" tilted slightly backward; by resting the middle of his double-bladed paddle against this horn, the hunter obtained greater leverage. I saw no other attachment to a kayak, and was told that the hunter who carried a lance merely pushed its
[126] butt under the lashings of the paddle rest. From Capt. J. Bernard, however, I
[237] obtained the curious baleen object illustrated in Figure 182, which he stated had been used in some way on a Coronation Gulf kayak. Possibly it supported the skin deck, its two triangles fitting on the gunwales; or it may have been fastened on the deck and lances thrust through the triangles.

501 Figure 180 shows the wooden paddle of the kayak illustrated in the same
32 drawing. It is 11 feet long, ridged at each grip, and edged with bone on the two
322 blades. The bone is grooved to fit over the wood and secured with antler rivets that in three places have fallen out and have been replaced by iron nails. Over each of the two ridges is a sealskin ring three-quarters of an inch in diameter, made by coiling a thong of sealskin around a base of the same material; it kept
501 the water from dripping down the blade onto the paddler's hand. Having seen in the Coronation Gulf area only two other paddles, which I did not examine

closely, I cannot say whether or not this specimen is typical. One thing is certain, however, the Copper Eskimo never used the single-bladed paddle that is now so common in the western Arctic. 501



[321]

Figure 181. Paddle rest. IV.D.1648. 1/1.

As the kayak was useless in winter, the Copper Eskimo hunter commonly stripped off its skin covering and cached the frame in some convenient place, weighting it down with a few stones. One man cached his frame near the headquarters of our expedition, where I might have studied its construction in detail; unfortunately, I let the opportunity pass. If a hunter desired to cache his kayak during the summer months, when its skin cover might be torn to shreds by dogs and foxes, he sometimes raised it on stone pillars. Two such pillars on Victoria Island, built of flat slabs of dolomite, stood about 5 feet high and about 8 feet apart.

[126] [237]

Figure 182. Kayak appliance, of baleen. IV.D.1647. 1/3.

PASTIMES

The pastimes of the Copper Eskimo have been described in Report of the Canadian Arctic Expedition, vol. XII, ch. XVII. Only two or three of them required specially made apparatus. 524

Cup and Ball. For the "cup and ball", or "ring and pin" game, as it is variously called, the Copper Eskimo invariably used the humerus of the bearded seal. They drilled one hole through the centre of the smaller end, but in the larger end as many as possible, even continuing them at times down one or both faces. Figure 183 shows a typical specimen. 524 321

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velocity of the wind by simply moving a switch; the winter before, with a different type of anemometer, we had crouched in the snow outdoors and read a dial on the base of the instrument. We made soundings, too, inside and outside the harbour, and Johansen collected marine specimens in both places, using a drag-net towed behind the launch during the autumn months, and, after the freeze-up, a hand-net let down through holes in the ice. On stormy days we developed photographs and worked up our field-notes of the preceding year.

Sunday was generally a day of rest, given over to reading, long walks, and similar recreations. Saturday evenings we devoted to bridge, a game that was strictly forbidden on other days of the week. As we sat around the card-table one stormy night, Palaiyak reported that the wind was carrying away the tarpaulin that covered the porch. We dropped the cards on the table and rushed to the rescue, not lingering to put on overshoes or heavy clothing. Two men climbed to the roof and held it down with their weight; the others sought around the caches for boulders, bags, and anything else that would serve to batten down the tarpaulin. It was pitch dark, and the snow, driven by the howling gale, lashed our faces like hail. Cox, carrying a huge block of ice in his arms, crashed into Chipman, who was packing a sack of coal. Fingers and toes began to freeze, and excitement ran high for

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my presence in the dance-house, which was in this village the forecourt of a large two-roomed hut. Seated in state on a sleeping-platform I watched their monotonous performance for two hours; then weariness overcame me, and, slipping through the low doorway, I retired, unattended, to my new home.

Eskimo dances have a superficial resemblance to the open-air meetings of a church army band, except that the only musical instrument is a drum. The singers form a ring around the leader, who hops and prances rhythmically to the accompaniment of a song. As one dancer tires and steps back into the ring, another takes his place. Women and children alternate with the men, for the sexes have almost equal status in this twilight land. Sometimes the faces of the singers glow with such earnestness that even the alien spectator succumbs to the emotional atmosphere and joins in their embryonic religion. Thus with song and dance they while away the evening hours until one after another drops out of the circle and the gathering dissolves to its homes

I measured the heads and statures of the Eskimos from early the next morning until mid-afternoon. Every man who submitted to the operation received a fish-hook, every woman a needle; and the payment seemed to satisfy them all. On completing these measurements I traded for museum specimens, bartering knives, files, and other articles for lamps and pots

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126 of stone, ladles of musk-ox horn, and garments of seal-
126 skin and caribou fur. The natives, growing more and
123 more excited as my stock of trade goods diminished, jostled and clamoured for place, fearful of being too late for the bargains. Finally a riot threatened, and I resorted to strategy, stopping the trading to fill or relight my pipe whenever their emotions gained the upper hand. By evening I had exhausted all my goods and amassed enough specimens to fill my sled for the return journey.

123 Two of the villagers accompanied me back to the station, partly from curiosity, partly to gain the advantages of early trading. They were not the representatives I myself would have chosen, for they were young and inexperienced, with all the presumption that often goes with youth. The size of our outfit awed them a little the first day, and the many strange instruments set up around the station amazed and bewildered them. But their embarrassment passed away overnight; consumed by curiosity, they wanted to handle everything they saw and begged continually for whatever seized their fancy. Palaiyak was quite disgusted with them. He told them about the missionaries who were coming the following year, men who would teach them the good life that led after
812 death to the sky. But our guests assured him they had no desire to go to sky-land; they were content

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bullet with his ramrod; when that failed, he borrowed another rifle and fired a blank cartridge down the muzzle, while a crowd of natives stood around him to see the result. Fortunately there were no casualties; the chamber merely swelled to the size of a hen's egg and cracked. Then the man and his companions, thinking that the tempered steel might be malleable like the native copper they used for their tools, attempted to weld the crack by pounding on it with a heavy stone.

Hitherto I had escaped all friction with the natives; now came my first trouble. I was sitting in their largest hut, bartering knives, files, and cooking-pots for the usual museum specimens. A native offered to exchange a small horn drinking ladle for a twelve-inch butcher's knife, and I refused, since the knife was worth a dozen such ladles. He knew that all my companions were fifty miles away, and determined to take by force what he was unable to obtain through barter. He seized the knife, and I seized his wrist. In strength we were equally matched; he could not release his wrist, nor could I force the knife out of his fingers. The hut was crowded to suffocation with Eskimos, who made no attempt to take part in the struggle, but waited to see the issue. They had no chief, no one with authority to settle the case at strife; if my adversary won, the more lawless would band together and strip me of everything I had. The

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relight the lamp, sank up to her knees in the icy slush; her terrified shriek made us leap from our beds in alarm. Fortunately the water rose no higher during the night, or we might have had difficulty in escaping to the land. As it was we were able to wait until daylight, when we cut a hole through the back wall and transported our belongings to a safer home beyond the reach of the tide.

I marvelled at the time that the roof of the dwelling did not cave in upon our heads. But a snow-hut is remarkably solid once the warmth inside has converted its walls to ice. Soon after this gale I visited the hut in which I was nearly asphyxiated a few weeks before, and the native who accompanied me stood on its highest block without disaster. He mounted cautiously, it is true, for even ice must be fairly thick to withstand a pressure of 150 pounds; and the walls of this hut were still mainly snow, for we had occupied it only one night. But it was a striking test of the solidity of a snow-house, and explained why the entire half of a dwelling may be cut away without disturbing the other half.

There were so many things of interest in our new settlement, so much that was novel and strange to record in my note-books each evening, that the days passed almost unnoticed. The Eskimos themselves knew nothing of days or weeks; they kept no reckoning even of the months, only of the changing seasons as they affected the food supply.

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line might represent the coast along which he had recently been travelling; but when I asked him to name and point out the positions of the capes and streams he had passed on the way, he placed his finger indifferently on places as far apart as Victoria Island and Great Bear Lake. Yet an Eskimo of northern Alaska, who was unable to read and had never held a pencil in his hand, once drew me a remarkably accurate outline of the Colville River and all its tributaries, besides many vivid sketches of camp scenes and the hunting of seals and caribou.

Among the specimens I bought at this time was a large lamp which we immediately put to use for warming up our tent. It was made from soft soapstone, and shaped like an enormous saucer cut in half. We filled it with crushed seal-blubber, and along the straight front edge arranged the wick of cotton-grass seeds, which are not unlike cotton-wool. The lamp, when burning perfectly, gave a low smokeless flame an inch high and about sixteen inches long, quite sufficient to keep us comfortably warm even with the door partly open; but as neither Palaiyak nor I were very skilful in adjusting the wick a thin layer of soot began to form over the inside of the tent. We hired two little girls to keep the dogs away when we were absent, and my "daughters," as the people laughingly called them, gradually assumed responsibility also for the lamp, which they managed to perfection. I rewarded them

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her to his nephew, who divorced her within three weeks for the same reason. Since she was barely fifteen years of age even after her second marriage, and could easily secure a third husband whenever she wished, we persuaded her relatives to grant her a year of freedom. Childhood came back to her during these months of respite; and no girl in the country seemed happier. Finally she married a young Eskimo brought in by some traders from the Mackenzie River delta; but of her subsequent history I have no record.

Palaiyak and I returned to Bernard Harbour about the middle of January, for Anderson wished me to join him on a trip up the Coppermine River. We conducted to our station an Eskimo family and Ikpuck's step-daughter Sculpin, one of the two little girls who had tended my blubber-lamp. Scuplin, or Jennie, as my colleagues christened her, became a general favourite through her frank smile and merry laughter. More intelligent than most of her people, she knew how to keep out of our way, and spent many quiet hours in a corner mending the rents in our clothing, or gazing at the pictures in our books.

My scientific equipment included an Edison recording phonograph and a number of blank cylinders. Now that I had gathered at the station a small party of Eskimos easily handled and fairly familiar with our ways I used the opportunity to record some of their dance-songs. The Eskimos had paid little attention to

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126 123 the gramophone of Captain Bernard, our predecessor in this region, because they failed to understand the white man's music; but they looked with awe on the uncanny machine that reproduced not only their words but even the ejaculations that unconsciously escaped their lips. The first man who sang into it shivered with apprehension when he heard his voice come back to him out of the horn, and asked in an anxious whisper, "Is there a spirit concealed in the box?" Nothing would induce him to sing again, and for a time I feared that this first record of their music would also be my last. But little Jennie rose to the occasion; she was too young and innocent to fear the white men who had hitherto done them no harm, and the phonograph was an exciting adventure. She sang half a dozen chants for me that evening, and made the house ring with laughter when we played them over again, and she heard the coughing that interspersed the words. Thenceforward I had no difficulty in finding singers, and we carried out of the country records of 150 songs for future study.

114 123 Palaiyak and I paid another brief visit to the island Eskimos before travelling eastward. Jennie went back with us, and we lodged in the house of Ikpuck, her step-father, because it was more convenient than a [142 551] private hut that needed constant guarding. Ikpuck's wife was a comely matron, weighing something under 200 pounds, who rejoiced in the possession of two

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CHAPTER VI

LENGTHENING DAYS

BERNARD HARBOUR presented a scene of extraordinary activity and confusion during the three weeks following our return; in fact, it was the busiest and most populous trading post in the whole of Arctic Canada. Five-score natives were living in snow-huts along the beach not fifty yards from our door; and from a similar settlement a few miles away men, women, and even children drifted across daily to trade with us and to visit our neighbours. We tried to bar them from the house during the day and let them enter after supper only; but they flooded in at all hours, and treated the place exactly like one of their own homes.

I myself was glad of their presence. I could spend

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123
437 the whole day inside our warm house writing down
• 126 their customs and beliefs; and I could buy all the specimens they offered me, for the tents where I stored them lay right at our door. The natives sang dance-songs each evening into my phonograph, and helped to transcribe the words when I played them over for their entertainment. True, their numbers embarrassed me occasionally; they jostled my arm as they crowded around, talked incessantly all at the same time, and laughed at the babel of their own voices. But they were always good-natured, and genuinely interested in helping on my work.

123 The other four residents of our little home hardly welcomed the intrusion, although they cheerfully endured it from a misguided compassion for me. They usually took refuge in their bunks after supper, to delve into Arctic literature or ponder over scientific notes; but whenever the invasion threatened to overwhelm me, they came to the rescue by delivering an attack on the flanks. O'Neill displayed queer conjuring tricks, Johansen showed pictures of strange birds and animals, Chipman drew the likenesses of our visitors, and Cox made them join hands and dip for trinkets into a bowl of salt water connected with two or three electric cells. The natives turned the tables on us one evening by subjecting our faces to a rigid scrutiny. Chipman and O'Neill, they concluded, were very young because they seemed to grow no beards, but

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008 almost devoid of vegetation. We stumbled over a bed
133 of dolomite split by frost into rectangular blocks, its
417 resemblance to the floor of an ancient temple heightened by two stone pillars erected several years
224 before to support a kayak or hunting canoe. A mile or two beyond a caribou caught our scent, whisked up its tail, and bounded out of sight behind a low ridge. We could see a fair-sized stream in the distance tumbling
224 among the rocks; and there Ikpuck instructed us to
361 camp while he pursued the caribou that had just disappeared. Twelve hours later, when every one was asleep, he returned, and, pushing open the door of my
[487] tent, displayed the skins of two caribou; their carcasses he had left side by side for the women to bring in, merely aligning some boulders on top of a knoll to guide them in their search. Icehouse and Jennie dressed and departed immediately with dogs and packlines. The howling of the other dogs aroused the camp, and a second party went out to look for more caribou. So, for one reason and another, we lingered in this spot nearly three days.

• 126 Instead of hunting during this interval, I made a
[312] collection of all the plants growing around us, and
515 enjoyed two swims in a neighbouring pool. A bath is a rare luxury in the Arctic, where there is often no water to wash even the face and hands. My companions solved the problem by never washing. Contact with the snow in winter purified them, and in

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222 415 [137] women and children gathered large quantities of these seeds, stuffing them into small bags of the strangest varieties and materials. Some were worn-out stockings of squirrel or caribou fur; two were made from the membranes that had lined the hearts of our polar bears; but the most curious of all were bottle-shaped pouches sewn from the webbed feet of red-throated loons. Whatever their shape, all alike found their way into the dog-packs, where they added one more item to our varied impedimenta.

484 Our loads had increased considerably since those early days in August when, leaving the hills, we had [231] commenced this ceaseless quest of caribou. Icehouse, it is true, had no longer two small puppies tearing at the back of her hair while ostensibly nestling in the hood of her jacket; they were sturdy urchins now, able to keep pace with the other dogs and to steal the meat [251] from our packs. But in addition to her usual burden [482] she carried fifteen pounds of tallow, her share of the caribou back fat that the women had boiled down for [482] ease of transport. Each man had several green caribou hides rolled round his pack, and Ikpuck and The Runner bore the two bear skins, which alone weighed [126] upward of fifty pounds. My own pack was unchanged save for two extra caribou hides, and an increase in the thickness of my herbarium from two inches to six.

775 Late one afternoon, as we skirted the edge of a lake, we came to an old camping-site where a woman's knife,

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533 highest relief from the gloom and perils of the long Arctic night. Nature, when she condemned them to this twilight land, granted them the gift of song, and, however harsh their voices, their melodies revealed a
• [126] deep sense of musical beauty. The example given below was transcribed unchanged from one of my phonograph records, and only the harmonies added to adapt it to the pianoforte.

221 The natives moved away at last to the Liston and
123 Sutton Islands, whither Patsy and I followed them; but we returned to the station for Christmas, accompanied
621 by Jennie and another child. Our party had grown from nine the previous winter to seventeen, half of
123 whom were Eskimo assistants from the west. Mainly for their pleasure we set up a Christmas tree, filled their stockings with presents, and held sports in the snow outside the station house. Patsy contributed an unexpected item to the program of events. He carved the figure of a bird from a snow-block, and caused a stampede for shotguns and .22 rifles by abruptly announcing that a ptarmigan had settled at our door; three men levelled their guns at the dummy bird before the trick was discovered. With presents and games the fête succeeded gloriously, and the cook rounded it off with a Christmas dinner that included real mince pies and an enormous plum pudding. Through it all little Jennie and her playmate wandered about in a daze, neither comprehending our strange actions, nor the

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157 "Perhaps."
123 "You can use it for dog-food, you know."
"Yes." And I continued on.
"By the way, I'm Big-Tooth, you know."
"Yes, Big-Tooth."
"By the way—". But I pretended not to hear him and hurried to overtake Patsy. Big-Tooth was a good fellow and deservedly popular; yet even his countrymen, whose own minds moved in constant circles round the material present, took to flight whenever he joined in a conversation.

342 On reaching the islands we erected a tent inside an unusually large snow-hut that opened into Ikpuck's dwelling. This was an admirable arrangement for [354] two reasons; the hut gave us shelter from the wind, [313] and the tent made it possible to set up a stove where we could burn some of the driftwood that lined the 124 western beaches of the island. Here, with more pri- • 126 vacy, we made another attempt to investigate the mythology and religion of the people. Ikpuck and Icehouse gladly told us all they knew, and though not well versed in the traditional lore of their people, they could direct us to better informants. We then closeted ourselves with two old men, whose hearts we warmed with some hard biscuits and cups of steaming chocolate. The comfortable tent and the unusual beverage loosened their tongues, and when one man

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lifted the veil of secrecy a few inches the other raised it higher, lest silence should rob him of a share in the reward. In the end it was not their secretiveness that hampered our researches, but our ignorance of their ways of thought and their own inability to narrate a story from the ground upward; for they invariably began with the crisis, so to speak, and worked backward and forward, with many omissions and repetitions, on the tacit assumption that our minds moved in the same groove as theirs and that explanations were needless.

If the preceding winter had been unusually mild, this one was unusually stormy. Gales from east and west—the two prevailing quarters—swept the shelterless ice-field day after day until its covering of snow grew hard like a macadamized road. Then the wind blew narrow furrows along it, *sulci* with crests so sharp that they hurt the feet. Hunters who ventured out to seal could find no breathing-holes amid the driving snow, and with difficulty reached their homes again. The first gales passed unheeded. The people had fish and caribou meat stored outside their huts, and pokes of blubber for their lamps. Gathered inside the dance-house, they could laugh at the howling blizzards and while away the hours in song and gymnastics. But when their food was exhausted, when half their lamps had expired from want of oil, dance-songs

THROUGH BLIZZARDS TO SPRING

Spring came suddenly about the middle of March, 132
when the thermometer rose well above zero. Our 437
station then became the Mecca for tribes from as far 123
east as the Musk-ox people, who, like the nearer Eskimos, clamoured for trade goods, rifles, and ammunition. These were not the people I had visited three 621
or four weeks previously, but kinsmen from the second camp a few miles farther east, who had lingered at their new sealing-ground until milder weather enabled them to undertake the long journey to Bernard Harbour without hardship. Their leader was a short, white- 622
bearded medicine-man, brusque but always dignified in 157
his movements, and with a shrewd, kindly face that attracted immediate attention. Undoubtedly he possessed great force of character, for his tribesmen reverenced him as a father and complied with all his wishes; nominally the Eskimos recognize no chiefs among themselves, considering every man the equal of every other.

The old man taught me some of his ancient lore, and 787
even summoned a familiar spirit that I might record a [126].
shamanistic séance on the phonograph. His followers credited him with the most fantastic powers; he could fly through the air like a bird, go down into the ocean like a fish, see what was happening hundreds of miles away. But the old man never boasted of these things; they might be true, he said, and they might not, for he lost all consciousness of himself when the familiar spirits took possession of his body.

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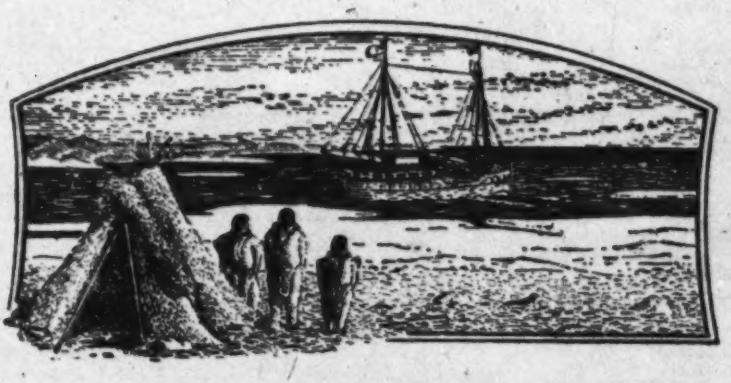

CHAPTER XIII

THE LAST DAYS

000 THE harbour ice broke up about the middle of June, and our schooner swayed once more to the gentle motion of the waves. Though the pack in the strait appeared still solid and immovable, a dark line across the sky indicated open water at no great distance, warning us to hasten the preparations for our departure. The house would remain to 126 114 serve Girling as a mission building, and some of our supplies were hardly worth freighting away; but there were natives to pay for their services, tents and equipment to store deep in the hold, and thousands of specimens, geological, biological, and ethnographic, to label and pack away in boxes, bags, and tins—any receptacle, in fact, that could be made to serve our needs.

123 177 Several families of Eskimos that fluctuated between the station and a small fishing-creek four miles away garnered a rich harvest from our packing. They gath-

29: Jenness E-5 (1914-1916) 1959
ND8 Copper Eskimo ND8

ered up the empty gasolene cans to convert into cooking-pots, and scrap bars of iron to hammer into chisels and harpoon shafts. Sometimes they gleaned more widely than we desired, even carrying away two tarpaulins that covered a cache; but they surrendered these ill-gotten trophies with great good-humour. Many offered to help us for a trifling consideration, such as a half-dozen matches or an old, disused knife; but there were few tasks that lay within their power. To distract their attention from more serious matters we sent them to help Johansen, who was devoting every spare moment to augmenting his collections of the various plants and insects. So all one afternoon a stream of natives flowed steadily toward his tent, calling, "Matches, Johansen, matches," each individual holding out in payment a fly or a grub sadly crushed between thumb and forefinger. How many matches they obtained I cannot say; but since the biological collections underwent no increase, the experiment was not continued.

Ikpuck and his family, who were to keep watch over the station between the time of our departure and Girling's arrival, pitched their tent beside us for a short time before joining their countrymen at the fishing-creek. I visited him each day to talk over old times, and to observe his progress on the new steel runners that he was fitting to his sled. One evening Icehouse sent away the children and asked me to lie on

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they were making their one final appeal. What had my "spirit" answered? What could it answer? When trouble came upon them, as it surely must, and they cried to me for help, would they think me ungrateful if no help came? At last I turned to Icehouse and said, "Sometimes, you know, it is not possible to help." And she answered sadly, "Yes. There are many evil spirits surrounding us, and sometimes no help is possible."

I finished the packing of my specimens before the end of June, and since the heavy ice in the strait would prevent our sailing for at least two weeks, I thought I might travel down to Cape Krusenstern for a farewell view of some Eskimos who were still fishing in the various streams. Patsy was to accompany me, and, with the consent of Ikpuck and Icehouse, I invited Jennie to go with us. She danced with glee at the prospect. Without further delay, we rolled up our packs, loaded two dogs with extra provisions, and marched away over the tundra.

Jennie was the merriest of companions, and the most useful. She laughed when the dogs chased a sandpiper, she laughed when she stumbled over a niggerhead. Her laughter was infectious, and no merrier party ever tramped those northern meadows. She was only twelve years of age, or thirteen at the most, with all a child's love of play and pastime; yet already she knew some of the responsibilities of her sex, and at the